Solutions for network closets and server rooms

The most manageable, most adaptable infrastructure for small IT environments

Integrating management into our product solutions, APC™ by Schneider Electric™ provides the answer to your customers rising energy costs and lack of on-site resources.

Our highly manageable power infrastructure allows energy usage monitoring, outlet control, and automation, and we keep installation costs down with our ready-to-install, easy-to-configure products, making our solutions truly "plug and play."

APC™
by Schneider Electric

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NetShelter SX enclosure features

More standard features for faster installation

1 Cable access roof

- Eight cable entry slots
- Toolless mounting of overhead cable trough system
- Snap-in mounting to allow easy roof removal and installation with cables in place

2 Integrated baying brackets

- Pre-installed on frame front and back
- Spacing options at 24 in or 600 mm
- Bays with other APC power and cooling products

3 Pre-installed levelling feet and casters

- Easily adjustable levelling from top down
- Casters standard on all enclosures

4 Toolless, zero U accessory channel

- Toollessly mount Rack PDUs
- Toollessly mount vertical cable organizers

5 Easily adjustable vertical mounting rails

- Simple screw and cam engagement
- Captive screws - no loose hardware
- Easy visual alignment for quick adjustment
- Adjust in .25 in increments through enclosure
- Hole cutouts for 0U installation (AR8469) of APC Data Distribution Cable (DDC) accessories

6 Half-height side panels

- Easy and safe handling
- Quick release latch
- Lockable - same key as doors
- Enclosure width remains the same with or without sides attached

Other standard features include:

- Integrated electrical bonding of sides, doors, roof, and rails to frame
- Ventilated front and rear doors
- Split-rear ventilated rear doors for better clearance in hot aisle
- Numbered U positions front and back
- Open bottom for unobstructed under floor access
- 3000 lb (1365 kg) static load, 2250 lb (1025 kg) dynamic (rolling) load
- UL Listed
- Energy Information Administration (EIA)/ECA-310-E compliant

NetShelter SX enclosure and selection

Applications for height

24U Enclosures - Remote offices and small spaces

42U Enclosures - Standard height used globally, designed to fit through standard doorways

45U Enclosures - Enclosures with additional U-spaces for environments that standardize on a 45U 7 ft enclosure height

48U Enclosures - More U-spaces for more equipment in the same footprint

Applications for depth

32.5 in (825 mm) is the preferred depth for AV equipment

42 in (1070 mm) is the standard depth and meets most low to medium density applications

The 47.5 in (1200 mm) NetShelter has double the toolless mounting locations for more Rack PDU and cable management options (excluding AR3x4x enclosures)

The 47 - 48 in (1195 - 1220 mm) depth enclosures are becoming the new standard because of increasing server depth crowding cable and power space

Applications for width

24 in (600 mm) wide enclosures are the standard for most server applications. For higher densities a deeper enclosure may be required

30 in (750 mm) wide enclosures offer more space for high capacity cable management and power distribution. Typically wider enclosures are used for networking applications but the extra side space is often requested in blade sever applications

NetShelter SKU	Height	Width	Depth	Application
AR3100	42U	600 mm (24 in)	1070 mm (42 in)	Low-medium density servers
AR3107	48U	600 mm (24 in)	1070 mm (42 in)	Low-medium density servers
AR3150	42U	750 mm (30 in)	1070 mm (42 in)	Networking and blade applications
AR3157	48U	600 mm (24 in)	1070 mm (42 in)	Networking and blade applications
AR3300	42U	600 mm (24 in)	1200 mm (47.5 in)	Medium-high density servers
AR3307	48U	600 mm (24 in)	1200 mm (47.5 in)	Medium-high density servers
AR3350	42U	750 mm (30 in)	1200 mm (47.5 in)	High density networking and blade applications
AR3357	48U	750 mm (30 in)	1200 mm (47.5 in)	Networking and blade applications
AR3140	42U	750 mm (30 in)	1070 mm (42 in)	High-density networking
AR3340	42U	750 mm (30 in)	1200 mm (47.5 in)	Very high-density networking
AR3347	48U	750 mm (30 in)	1200 mm (47.5 in)	Very high-density networking
AR3200	42U	600 mm (24 in)	1070 mm (42 in)	2 x 20U compartments for colocation
AR3104	24U	600 mm (24 in)	1070 mm (42 in)	Remote server applications
AR3810	42U	600 mm (24 in)	825 mm (32.5 in)	Audio visual applications
AR3812	42U	600 mm (24 in)	825 mm (32.5 in)	Audio visual applications
AR3814	24U	600 mm (24 in)	825 mm (32.5 in)	Audio visual applications

NetShelter SX networking enclosure

Optimized NetShelter SX design for enhanced networking application support and a superior solution for side airflow Cisco Nexus® 7018, Catalyst®, and MDS networking switches

AR3140 - 42U x 30 in W x 42 in D
AR3340 - 42U x 30 in W x 47.5 in D
AR3347 - 48U x 30 in W x 47.5 in D

Cable access roof

- Extra large cable access slots for high-density cabling and brush strips for air containment
- Two spring loaded pins allow for easy roof removal and installation with cables in place

Networking style mounting rails

- Easily align rails that adjust in .25 in increments
- Left vertical mounting rail contains additional cable channel
- Rail position preset to accommodate Cisco® switches and cable management

Pre-installed vertical cable managers

- Front vertical mounting rails feature pre-installed single sided vertical cable managers
- Smooth plastic fingers provide proper bend radius for cables

Vertical mounting rails for side-to-side airflow

- Front right vertical mounting rail open for improved side airflow

Side airflow cooling

Support cooling for small and large networking switches mounted within an enclosure

- Side airflow solution (AR7742/AR7747) for Cisco Nexus 7018
- Side airflow duct kit (AR7715) mounts inside 30 in (750 mm) wide enclosures for Cisco 6509, 6513, 9509, 9513, and 9500 series switches
- Directs cool air at the front of the enclosure directly and predictably to the intake at the side of side airflow switches
- Consists of two duct assemblies that act as diverters, utilizing the existing fan power of the switch
- Systems of baffles are located throughout the enclosure to mitigate exhaust air from recirculating back into the air intake

AR3340 Networking enclosure and AR7742 side airflow solution for Nexus 7018

Toolless accessories

Vertical cable management

APC specializes in toolless install accessories by the use of the zero U channels located in the rear of every NetShelter SX enclosure

1 Vertical 0U accessory channels

- Allows toolless mounting of vertical Rack PDUs
- Toolless mount vertical cable organizers
- Additional vertical 0U accessory channels:
  - **AR7502** Vertical 0U accessory channel, 42U, qty. 2
  - **AR7552** Vertical 0U accessory channel, 45U, qty. 2
  - **AR7572** Vertical 0U accessory channel, 48U, qty. 2
  - **AR7511** Narrow vertical OU accessory channel, 42U
  - **AR7505** Vertical cable organizer, center rear mount

2 AR8442 - Vertical cable organizer, eight cable rings, zero U

- Supports 35 to 55 CAT 6/CAT 6A data cables
- Mounts toollessly on the vertical 0U accessory channel

3 AR8443A - Vertical fiber organizer

- Installs toollessly
- Takes up one bay of channel
- Fiber spool only kit available (AR8444)

4 AR8457 - Data distribution 0U SX panel

- Installs toollessly
- Takes up one bay of channel
- Toollessly mount up to four DDC cable heads, 24 ports for rack-to-rack connections

5 AR7710 - Cable containment brackets with rack PDU mounting

- Low profile vertical cable management
- Support 60 to 90 CAT 6/CAT 6A data cables
- Mount toollessly on the vertical 0U accessory channel

6 AR7711 - Zero U accessory bracket

- Mount Rack PDUs in rear facing orientation
- Support 3rd party accessories in numerous mounting configurations
- Mount 1U or 2U patch panels or other networking accessories

7 AR8621 - Hook-and-loop cable managers, qty. 10

- Mount toollessly on the vertical 0U accessory channel
- Secure and bundle cables with hook-and-loop ties

NetShelter SX cable management

Server and networking applications

As the number of IT components within each rack enclosure continues to increase, so do the number of power and data cables. APC by Schneider Electric offers a large selection of vertical and horizontal cable managers to address today's cable routing demands. From toolless install ring-style managers for server applications to high-density finger-type managers for supporting patching and switches, APC by Schneider Electric is a leader in innovative, application-driven solutions. Our unique overhead cable management system turns the top of the enclosure into a cable tray eliminating the need to use space under a raised floor and permitting better organization in non-raised floor environments.

APC by Schneider Electric has a strong history supporting the server applications in data centers around the world. The innovative, toolless, snap-in accessories have become the benchmark for server cable management.

High capacity cable managers can be used to support fiber and copper cable bundles.

1. **AR7580** - High capacity vertical cable manager for NetShelter SX 30 in (750 mm) wide enclosures (AR3x5x), supports 190 to 250 CAT 6A/CAT 6 data cables per section. 190 CAT 6A (.25 in - .30 in dia.) per channel section. Each kit covers one corner of the enclosure
2. Hinged covers for AR7580 vertical cable managers
3. Fiber slack spools for mounting to the vertical mounting rails of NetShelter SX 30 in (750 mm) wide enclosures (AR3x5x)

AR3150 with wide vertical mounting rails shown

AR3x5x 30 in wide enclosure with closed vertical mounting rails for server applications

NetShelter SX cable management

Horizontal cable managers

Finger type horizontal cable managers

Cable managers for patching and cross-over applications featuring, smooth radius plastic fingers that protect the cable from kinking and binding. Hinged, snap-on covers provide a clean look and retain large cable bundles. Cable managers with 6 in fingers include hardware for double-sided configurations with two units.

- **AR8602** - 1U horizontal cable manager with 4 in fingers and snap-on cover
- **AR8600** - 2U horizontal cable manager with 4 in fingers and snap-on cover
- **AR8601** - 2U double-sided horizontal cable manager with 4 in fingers and snap-on covers
- **AR8612** - 1U horizontal cable manager with 6 in fingers and snap-on cover
- **AR8606** - 2U horizontal cable manager with 6 in fingers and snap-on cover
- **AR8603A** - 2U horizontal cable manager with 6 in fingers, snap-on cover, rear cable pass-through holes, and slots for AR8008BLK/AR8016ABLK horizontal cable channel
- **AR8605** - 3U horizontal cable manager with 6 in fingers, snap-on cover, rear cable pass-through holes, and cable channel slots

AR8603A

AR8605

AR8606

AR8425A

AR8426A

AR8428

AR8427A

AR8113A

AR7707

Ring type horizontal cable managers

Economical cable managers for patching applications featuring various configurations to meet specific needs

- **AR8425A** - 1U horizontal cable manager with 4 rings
- **AR8426A** - 2U horizontal cable manager with 4 rings
- **AR8428** - 2U horizontal cable manager with 4 rings and pass-through holes
- **AR8427A** - 2U horizontal cable manager with multiple rings and small cable retainers
- **AR8113A** - Cable management rings (qty. 5 large, 5 small)
- **AR7707** - Cable management rings 8 in deep for 30 in wide enclosures (AR3x5x), qty. 8

Horizontal cable management accessories

- **AR8429** - 1U cable pass-through manager with brush strip
- **AR8129** - Cable management arm for use with sliding shelves
- **AR8008BLK** - Horizontal cable side channel (18 to 30 in adjustment) for routing cable front-to-back between the standard wide rack mounting rails or AR8603 and AR8428 horizontal cable managers
- **AR8016ABLK** - Horizontal cable side channel (10 to 18 in adjustment) for routing cable front-to-back between the standard wide rack mounting rails or AR8603 and AR8428 horizontal cable manager
- **AR7706** - Mounting rail brush strips for 30 in wide enclosures (AR3x5x), qty. 6

AR8429

AR8129

AR7706

AR8008BLK/AR8016ABLK

NetShelter SX cable management

Overhead cable troughs and partitions

- NetShelter enclosures feature the ability to integrate a system of troughs and partitions for routing power and data cable across the top of the enclosures
- Troughs and partitions reduce the need for expensive suspended cable tray systems
- Troughs and partitions install toollessly with snap-in tabs and have standard attachment points for cable ladder systems
- For information on other troughs and partitions not shown here see APC's website

1 Power cable trough

- Supports power distribution cables
- Provides separation from data cables
- Data cables pass-through underneath to front partitioned area
- **AR8561** - Cable trough, 24 in enclosures
- **AR8571** - Cable trough, 30 in enclosures

2 Pass-through data cable partition

- Partitions the top of the enclosure into cable routing areas
- Pass-through hole provides cable access into multiple cable areas
- **AR8163ABLK** - Pass-through data partition, 24 in enclosures
- **AR8173BLK** - Pass-through data partition, 30 in enclosures

3 Solid data cable partition

- Partitions the top of the enclosure into cable routing areas
- Solid face provides clean appearance at the front of the enclosure
- **AR8162ABLK** - Solid data partition, 24 in enclosures
- **AR8172BLK** - Solid data partition, 30 in enclosures

AR8561

AR8162ABLK

AR8163ABLK

Cable ladders and accessories

Cable ladders and attachment kits for routing power and data cabling overhead from rack to rack

Cable ladders and attachment kits	SKU	Ladder accessories	SKU
Cable Ladder 6 in (AR8164AKIT 6 in ladder with attach kit)	AR8164ABLK	Ladder Corner Clamp	AR8461
Cable Ladder 12 in (AR8165AKIT 12 in ladder with attach kit)	AR8165ABLK	Ladder Angle Clamp	AR8462
Alternate mounting - Ladder to Power Troughs	AR8576	Ladder Stacking	AR8463
Alternate mounting - Ladder to Data Partitions	AR8177BLK	Ladder Wall Termination	AR8465
Ladder to NetShelter SX Roof	AR8168BLK	Ladder Clamp Kit	AR8169
Ladder Elevation Bracket	AR8186		
Ladder to 2 Post Rack	AR8460		

Shelves and mounting hardware

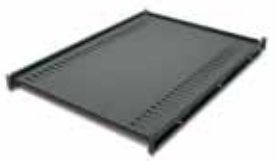
Mounting accessories to aid in the installation of IT equipment and secure racks into position

Shelving

Fixed and sliding shelves to enable the mounting of tower units, monitors, and other equipment into the rack environment

- **AR8105BLK** - Fixed shelf 50 lb (22.7 kg)
- **AR8122BLK** - Fixed shelf 250 lb (114 kg)
- **AR8123BLK** - Sliding shelf 100 lb (45.5 kg)
- **AR8128BLK** - Sliding shelf 200 lb (91 kg)
- **AR8422** - Double side fixed shelf for 2 post rack
- **AR8126ABLK** - 17 in Sliding keyboard shelf
- **AR8127BLK** - 19 in Sliding rotating keyboard shelf
- **AR8006A** - Misc. equipment support rails for 24 in wide enclosure

AR8105BLK



AR8122BLK

AR8128BLK

AR8422

AR8126ABLK/AR8127BLK

AR8006A

Bolt-down and stabilization

Stabilization plates and hardware to prevent tip-over in stand-alone rack applications and meet specific anchoring requirements

- **AR7701** - NetShelter SX bolt-down kit - meets IBC seismic requirements
- **AR7700** - NetShelter SX stabilization plate to prevent tipping when sliding out equipment

AR7701

AR7700

Miscellaneous mounting brackets

Variety of mounting brackets for mounting IT equipment

- **AR7711** - Zero U multi-purpose accessory mounting bracket for side mounting of 1U/2U products and rack PDUs
- **AR8150BLK** – 23 to 19 in mounting adapter brackets for use with AR7510 23 in EIA mounting rails

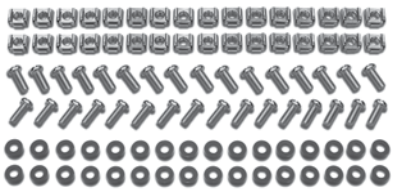
AR7711

AR8150BLK

Hardware kits

Available for additional hardware needs or to accommodate equipment mounted in varying mounting options

- **AR8100** - M6 Cage nuts and screws, qty. 32
- **AR8400** - #12-24 screws, qty. 100
- **AR8005** - #10-32 cage nuts, qty. 36

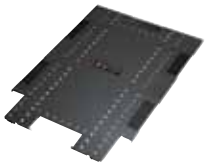


AR8100

Rack components

Replacement doors, side panels, roofs

Standard doors, side panels, and roofs are available for all enclosure sizes. Check the enclosure product page options tab on www.apc.com for a list of these rack components.



Specialty roofs, side panels and accessories

- **AR7252** - Networking roof for high-density cabling 30 in (750 mm) wide x 42 in (1070 mm) deep
- **AR7716** - Networking roof for high-density cabling 30 in (750 mm) wide x 42 in (1070 mm) deep
- **AR7215** - NetShelter AV enclosure top mount conduit access adapter
- **AR7209** - Open roof support bridge for overhead troughs and partitions
- **AR7305A** - NetShelter SX pass-through side panel 42U x 42 in deep
- **AR7313** - NetShelter SX pass-through side panel 42U x 47.5 in deep
- **AR7315** - NetShelter SX pass-through side panel 45U x 42 in deep
- **AR7316** - NetShelter SX pass-through side panel 45U x 47.5 in deep
- **AR7375** - NetShelter SX pass-through side panel 48U x 42 in deep
- **AR7314** - NetShelter SX pass-through side panel 48U x 47.5 in deep
- **AR7714** - Replacement snap-in brush strips for SX roofs
- **ACF501** - Roof fan for 24 in wide x 42 in deep enclosures, 120 VAC
- **ACF502** - Roof fan for 24 in wide x 42 in deep enclosures, 208-230 VAC
- **ACF503** - Roof fan for 30 in wide x 42 in deep enclosures, 120 VAC
- **ACF504** - Roof fan for 30 in wide x 42 in deep enclosures, 208-230 VAC
- **ACF505** - Roof fan for NetShelter AV 24 in wide x 32.5 in deep, 115 VAC
- **AR8132A** - Combination lock handle for NetShelter SX enclosures, qty. 2

AR7714

AR7209

AR7215

AR7252/AR7716

ACF503

AR8132A

AR7305A

Rails

Mounting rails

Vertical EIA rail mounting kits for different widths and depths

- **AR7510** - 23 in (585 mm) EIA mounting rails for 42U x 30 in (750 mm) wide enclosures

AR7510

Recessed rail kits

Intermediate mounting rails for supporting shallow depth equipment

- **AR7503** - 42U x 24 in (600 mm) wide
- **AR7504** - 48U x 24 in (600 mm) wide
- **AR7508** - 42U x 30 in (750 mm) wide
- **AR7578** - 48U x 30 in (750 mm) wide

AR7503

Open frame racks

Vertical cable management

NetShelter 2 and 4 post open frame racks

The NetShelter 2 and 4 post open frame racks offer a quality solution for the economical installation of rack-mountable equipment, where security at the individual rack level is not required. Open frame racks provide unobstructed airflow and fast, easy access to installed equipment, and can be paired with high-density vertical cable managers for maximum cable volume. The 2 post rack offers cost conscious customers a simple solution for supporting networking equipment and patching applications. The 4 post offers more strength and features for supporting servers and networking equipment. Recent improvements to the 4 post racks increase cable management options and flexibility.

Performance, high capacity, finger-type vertical cable managers

- Fits 2 and 4 post open frame racks
- Slam-to-latch full length door opens to left or right
- Cable management backplate or midspan bracket for toollessly mounting cable management accessories and Rack PDUs
- **AR8615** - 6 in (152 mm) wide, single-sided
- **AR8625** - 6 in (152 mm) wide, double-sided
- **AR8635** - 10 in (253 mm) wide, single-sided
- **AR8645** - 10 in (253 mm) wide, single-sided
- **AR8665** - 12 in (304 mm) wide, single-sided
- **AR8675** - 12 in (304 mm) wide, double-sided

AR8615/AR8625

AR8440A/AR8441A

Channel type vertical cable managers

- **AR8440A** - 3 in (91 mm) wide, black
- **AR8441A** - 6 in (152 mm) wide, black

2 Post rack

- Self squaring design
- 45U mounting spaces 84 in (2136 mm) tall
- Black finish
- 6061-T6 Structural grade aluminum
- Weight capacity (static load) 750.00 lbs (340.19 kg)

4 Post rack

- Threaded #12-24 holes (AR204A)
- Square holes for cage nuts and server mounts (AR203A)
- New design for easier assembly
- Steel construction
- 44U mounting spaces 84 in (2136 mm) tall
- Black finish
- Multiple toolless mounting points for hook and loop fasteners
- Multi-position rack PDU mounting bracket
- Reversible stabilization plates
- Grounding inserts
- Weight capacity (static load) 2000.00 lbs (909 kg)

Open frame racks

Applications

1 AR8444 – Cable slack spools

- Toollessly mounts on back panel
- Provides smooth radius support for cable slack

2 AR8621 – Toolless hook and loop cable managers

- 18 in (457 mm) straps for large data cable bundles
- Various mounting positions on back panel of vertical cable managers

3 AR8680 - Cable divider/organizer

- For creating multiple cable pathways within vertical cable managers
- Includes tie-off features for securing cabling using toolless hook-and-loop cable managers (AR8621)

4 Vertical Rack PDUs and patching

- Cable management backplate (single-sided) or midspan brackets (double-sided) allow:
  - Toollesslly mount, front or rear, multiple vertical Rack PDUs
  - 19 in (483 mm) patch panels can be installed vertically (double-sided only)

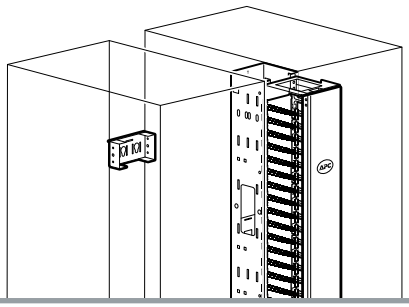
Accessories

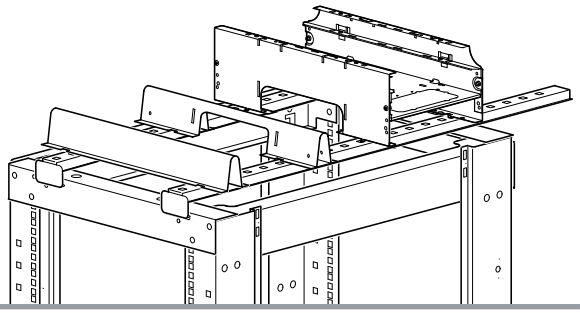
AR8652 – Rack PDU mounting bracket

- Mounts on sides as a spacer when using vertical cable managers between two racks
- Mounts on face of vertical rails, perpendicular, for single rack applications
- Designed to toollessly mount APC rack PDUs

AR8450A – Trough and partition adapter

- Provides mounting locations for APC overhead trough and partition cable management system





NetShelter CX enclosure

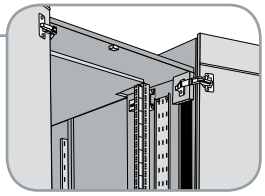
Soundproofed "Server room in a box" which allows for IT deployment wherever and whenever it is needed

Conveniently deploy servers and networking equipment in a quiet, ventilated, secure, and office-ready cabinet. The NetShelter CX is a cost-effective alternative for when there is no space, budget, or time for a traditional server room or wiring closet.

AR4038 - 38U AR4024 - 24U AR4018 - 18U AR4000MV

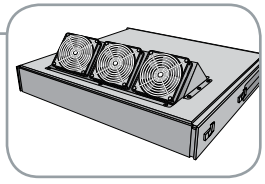
NetShelter CX features

Cable management
Full height vertical cable trays, front, middle, and rear of all units



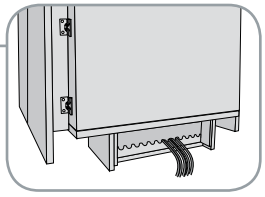
Composite wood structure
Composite structure with acoustic foam lining keeps hardware quiet and secure

Integrated fan module
Each unit is outfitted with fan module providing up to 3.6 kW thermal capacity



Zero U rack PDU
Each unit includes a Basic Rack PDU (AP9567) pre-installed providing 13 available outlets with AR4018, 12 with AR4024, and 11 with AR4038

Cable egress
Cable egress provides discrete and quiet exit of up to 400 CAT5/6 cables



Casters
Each unit sits on 4 casters, 2 swivel and 2 fixed for ease of deployment and mobility

Standard features

Floor space requirements: Enclosures are designed to be placed directly against a wall. Clearance of 200 mm / 8 in on both sides of the cabinet is essential for normal operation

Cooling system: 1 x ultra-low-noise exhaust fan module 1.2 kW maximum recommended total thermal load (or 4,100 BTU / hr). 1 module with AR4018, 2 with AR4024, and 3 with AR4038

Noise reduction: 18.5 dB broadband noise reduction, measured 39 in (1.0 m) in front of the enclosure (HP® and Dell® servers were used as noise source in noise reduction measurements)

Mobility:
- 4 x heavy duty castor-type wheels
- Front wheels have 360° rotation for maneuverability -- rear wheels have fixed front-to-back motion for stability

Rear and side access:
- Detachable rear side panels, left and right, for equipment installation and maintenance access
- Detachable rear fan modules gives completely open rear rack access

Cable management: 3 in (75 mm) width full-height vertical 0U accessory channels located on each side at the front, middle, and rear of the rack

Grounding: All equipment installed within a NetShelter CX should have conventional grounding via power cables, but unlike conventional metal-case cabinets, the NetShelter CX has no requirement for additional grounding in the form of ground strapping or pipe earthing, etc. The enclosure shell is constructed entirely from non-conductive materials and the rack is completely isolated from outside contact

Door locking: Key operated lock

NetShelter CX accessories - 18, 24, 38U

- **AR4601** - Bolt down kit - 2 L shaped brackets secure the enclosure to the floor.
- **AR4701** - Dust Filter pack for 18 and 24U. Increases the Ingress protection rating (IP) from IP44 to IP54 and reduces the risk of dust related equipment issues.
- **AR4702** - Dust filter pack for 38U. Includes filters for bottom and top of enclosure air intake holes.

NetShelter CX accessories - Mini

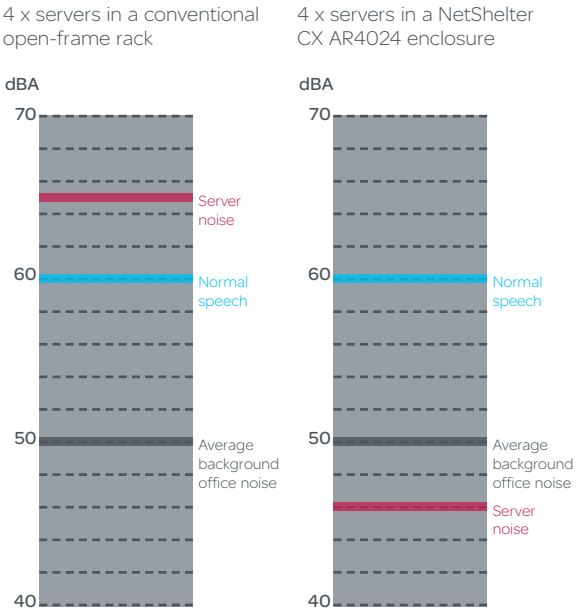
- **AR4000MV12U** - 12U Vertical Mounting Rail Kit for NetShelter CX Mini. Converts basic enclosure to a 12U rack enclosure.
- **AR4000MV-FR** - Fixed rail kit for NetShelter CX Mini provides 2 horizontal mounting ledges for equipment placement. Must be used with AR4000MV12U vertical mounting rail kit.
- **AR4601** - Bolt down kit - 2 L shaped brackets secure the enclosure to the floor.

AR4601

AR4000MV

Soundproofing

The NetShelter CX achieves 18.5 decibels of noise reduction. In real terms that means it is quiet enough to put in the open office and even quiet enough to sit next to it.



NetShelter CX Mini enclosure

The CX 'Mini' is a purpose built tower-server enclosure aimed at small, non-IT spaces such as Home Office, School, AV, Small Office, and Remote Office environments.

NetShelter CX Mini features

- **Ventilation system** - the ultra-low noise exhaust fan module has a 800W maximum recommended total thermal load
- **Cable management** - two cable-ports allow passage into and out of the enclosure for power and networking cables
- **Mobility** - 4 x office style casters
- **Access** - A detachable and lockable rear panel ensures security and quick access to the equipment inside

- **Integrated power strip** - Includes 3 IEC outlets and 2 sets of quantity of 3 regional specific equipment cords. The power strip is removeable to allow installation through the rear, without power-off equipment

Speciality enclosures

NetShelter seismic enclosure

Enclosure designed for essential facilities and carrier applications in seismic environments. Meets NEBS test standard GR-63-CORE Zone 4 at 1000 lb (454.5 kg) equipment load

- **AR2144BLK** - 42U x 24 in (600 mm) wide x 42 in (1070 mm) deep, NEBS enclosure, with sides
- **AR2145BLK** - 42U x 24 in (600 mm) wide x 42 in (1070 mm) deep, NEBS enclosure, without sides

AR2145BLK

NetShelter WX wall-mount enclosure

Support remote patching and networking applications in a convenient wall-mount rack with an easy install rear hinged section, and reversible doors

- **AR100** - 13U x 23 in (580 mm) wide x 25 in (630 mm) deep, wall mount enclosure with vented sides and glass front door
- **AR100HD** - 13U x 23 in (580 mm) wide x 25 in (630 mm) deep, wall mount enclosure with vented sides and full vented front door
- **AR8206ABLK** - Roof fan tray 120 V
- **AR8207BLK** - Roof fan tray 208/230 V
- **AR8359** - Caster kit for NetShelter WX
- **AR8355** - Ventilation plates for NetShelter WX

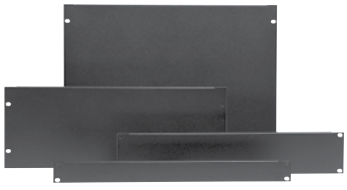
AR100

Cooling and airflow management

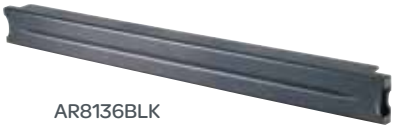
Blanking panels

Covers open rack space to prevent air recirculation and reduce bypass airflow to improve cooling efficiency

- **AR8136BLK** - 1U toolless snap-in blanking panel, 10 pk
- **AR8136BLK200** - 1U toolless snap-in blanking panel, 200 pk
- **AR8108BLK** - 1U standard metal blanking panel, 2 pk
- **AR8101BLK** - 1U, 2U, 4U, 8U, blanking panel kit
- **AR7708** - NetShelter SX Air Recirculation Prevention Kit for closing gaps and pass-through holes between side panels and equipment mounting rails



AR8101BLK



AR8136BLK

Cooling and airflow management

Side airflow cooling

Support cooling for small and large networking switches mounted within networking enclosures

- **AR7742 (42U)/AR7747 (48U)** - Side airflow solution for Cisco Nexus 7018 attaches to sides of 47.5 in (1200 mm) deep enclosures
- **AR7715** - Side airflow duct kit mounts inside 30 in (750 mm) wide enclosures for Cisco 6509, 6513, 9509, 9513, and 9500 series switches
- Consists of two duct assemblies that act as diverters, utilizing the existing fan power of the switch
- Systems of baffles are located throughout the enclosure to mitigate exhaust air from recirculating back into the air intake

AR7742

AR7715

KoldLok® raised floor grommets

Seal a variety of cutouts in a raised floor environment to reduce cold air leakage and improve cooling efficiency under the raised floor

- **AR7720** - Integral raised floor grommet (enclosed) for new installation, 10 pk
- **AR7730** - Surface mount raised floor grommet (split) for existing cables, 10 pk
- **AR7740** - Extended raised floor grommet to cover length of floor tile, 10 pk

AR7720

AR7740

Rack fan panel

2U rack mounted fan panel and accessories

- **ACF600** - 2U Rack fan panel
- **ACF601** - Rack fan panel temperature controller
- **ACAC40000** - 2U vent panel with temperature display
- **ACAC40001** - 2U vent panel

ACF600

Ducting only

Vertical Exhaust Duct (VED) for NetShelter SX is an easy to install, low-cost cooling option that can increase the efficiency of the attached cooling system

- **AR7751** - VED for 24 in enclosures, short range
- **AR7752** - VED for 24 in enclosures, tall range
- **AR7753** - VED for 30 in enclosures, short range
- **AR7754** - VED for 30 in enclosures, tall range
- **AR7755** - Overhead cable extension for VED 24 in
- **AR7756** - Overhead cable extension for VED 30 in

Roof fan trays available for 42 in (1070 mm) deep enclosures, see Rack Components on page 11.

AR7751 and AR7755 installed on AR3300 with cable management

Rack power distribution

Global power densities are increasing and becoming more unpredictable. Whether deploying rack power distribution in a wiring closet, server room, or data center, APC by Schneider Electric offers a consistent way to meet a variety of power density applications up to 22 kW per strip.

APC Rack PDUs have sufficient power and receptacle outputs to meet high kW loads in a minimal amount of space. Their ease of installation accelerates speed of deployment and reduces installation costs. With advanced rack power distribution, APC offers real-time remote load monitoring of connected equipment and individual outlet power control for remote power recycling.

Manage power at the rack level with pinpoint control

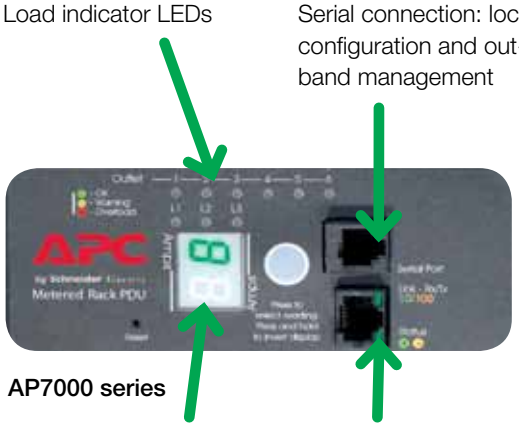
- **Basic Rack PDU -** Entry-level power distribution for rack-mount equipment
- **Metered Rack PDU -** Advanced power distribution provides real-time remote monitoring of connected loads
- **Switched Rack PDU -** Premium power distribution allows remote control of individual outlets and monitoring of aggregate current consumption
- **Metered-by-Outlet** - Provide real-time remote monitoring of each individual outlet
- **Rack automatic transfer switch -** Provides redundant power to single-corded equipment

The Metered and Switched Rack PDU offers advanced features to meet today's data center demands

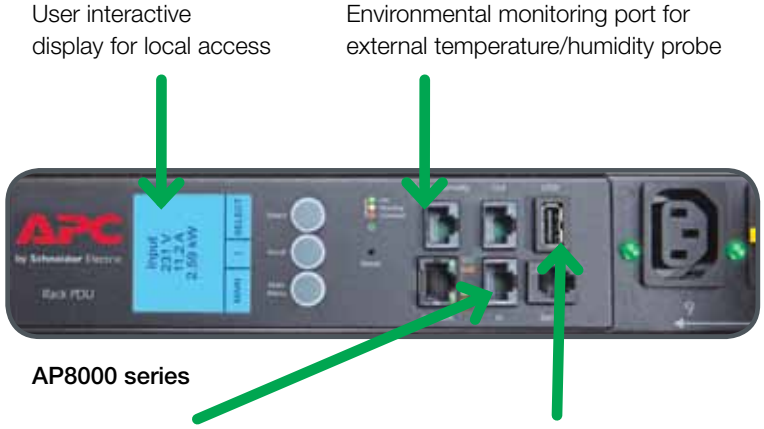
Monitors input and all breakers on the strip (local and remote) and offer user-customizable warning and overload settings, plus automated alarm notifications. Enables enhanced capacity management and network management.

- Web interface
- Telnet, SNMP
- Security
- Schneider Electric StruxureWare™ for Data Centers

Rack PDU local display


Load indicator LEDs
Serial connection: local configuration and out-of-band management
Local 2-digit LED current monitoring display
Network management: access, configure, and receive warnings from remote locations via Web, SNMP, and Telnet

AP7000 series


User interactive display for local access
Environmental monitoring port for external temperature/humidity probe
CAN In/Out ports for future functionality
Local USB port for flash firmware updates and downloading data/event logs (not to be used as serial port)

AP8000 series

Rack power distribution selection

Basic Rack PDUs

Mounting U-Space	Input Circuit	Nominal Power	Input Plug Type	Output Receptacles	Cord Length	SKU
120 V Input Voltage						
Vertical, 0U	15A	1.4 kW	NEMA 5-15P	(14)5-15	12 ft.	AP9567
Vertical, 0U	20A	1.9 kW	NEMA L5-20P	(24)5-20	10 ft.	AP7530
Vertical, 0U	20A	1.9 kW	NEMA L5-20P	(14)5-15	12 ft.	AP9551
Vertical, 0U	30A	2.9 kW	NEMA L5-30P	(24)5-20	10 ft.	AP7532
Horizontal, 1U	15A	1.4 kW	NEMA 5-15P	(10)5-15	12 ft.	AP9562
Horizontal, 1U	20A	1.9 kW	NEMA 5-20P	(10)5-20	12 ft.	AP9563
Horizontal, 1U	20A	1.9 kW	NEMA L5-20P	(10)5-20	12 ft.	AP9564
Horizontal, 1U	30A	2.9 kW	NEMA L5-30P	(10)5-20	12 ft.	AP9560
208 V Input Voltage						
Vertical, 0U	15A	2.5 kW	IEC-320 C14	(15)C13	6.5 ft.	AP9568
Vertical, 0U	20A	3.3 kW	IEC-320 C20	(15)C13	8.2 ft.	AP9572
Vertical, 0U	20A	3.3 kW	IEC-320 C20	(20)C13 (4)C19	10 ft.	AP7552
Vertical, 0U	20A	3.3 kW	NEMA L6-20P	(20)C13 (4)C19	10 ft.	AP7540
Vertical, 0U	30A	5.0 kW	NEMA L6-30P	(20)C13 (4)C19	10 ft.	AP7541
Horizontal, 1U	20A	3.3 kW	IEC-320 C20	(10)C13 (2)C19	8.2 ft.	AP9559
Horizontal, 1U	20A	3.3 kW	IEC-320 C20	(12)C13	8.2 ft.	AP9565
Horizontal, 1U	20A	3.3 kW	NEMA L6-20P	(12)C13	12 ft.	AP9566
Horizontal, 1U	30A	5.0 kW	NEMA L6-30P	(4)C19	10 ft.	AP9570
Horizontal, 1U	30A	5.0 kW	NEMA L6-30P	(10)C13	12 ft.	AP9571A
208 V 3 Phase Input Voltage						
Vertical, 0U	20A, 3ø	5.8 kW	NEMA L21-20P	(42)5-20	3 ft.	AP7562
Vertical, 0U	20A, 3ø	5.8 kW	NEMA L21-20P	(42)5-20	10 ft.	AP7592
Vertical, 0U	20A, 3ø	5.8 kW	NEMA L21-20P	(21)5-20 (6)L6-20	3 ft.	AP7563
Vertical, 0U	20A, 3ø	5.8 kW	NEMA L21-20P	(21)5-20 (6)L6-20	10 ft.	AP7593
Vertical, 0U	20A, 3ø	5.8 kW	NEMA L21-20P	(36)C13 (6)C19	3 ft.	AP7564
Vertical, 0U	20A, 3ø	5.8 kW	NEMA L21-20P	(36)C13 (6)C19	10 ft.	AP7594
Vertical, 0U	50A, 3ø	12.5 kW	CS8365C	(30)C13 (6)C19	3 ft.	AP7568
Vertical, 0U	50A, 3ø	12.5 kW	CS8365C	(30)C13 (6)C19	10 ft.	AP7598
Vertical, 0U	50A, 3ø	14.4 kW	CS8365C	(24)C13 (4)C19 (2)L6-30	3 ft.	AP7569
Vertical, 0U	50A, 3ø	14.4 kW	CS8365C	(24)C13 (4)C19 (2)L6-30	10 ft.	AP7599
Vertical, 0U	50A, 3ø	12.5 kW	CS8365C	(3)C13 (6)C19	6 ft.	AP7567A
Horizontal, 1U	50A, 3ø	14.4 kW	CS8365C	(6)C19	8 ft.	AP7516
Horizontal, 2U	30A, 3ø	5.0 kW	NEMA L14-30P	(4)L6-20	28 ft.	AP7581
Horizontal, 2U	30A, 3ø	5.0 kW	NEMA L14-30P	(12)5-20	28 ft.	AP7582
Horizontal, 2U	30A, 3ø	5.0 kW	NEMA L14-30P	(4)L6-30	28 ft.	AP7584
415 V 3 Phase Input Voltage						
Vertical, 0U	20A, 3ø	11.5 kW	IEC309 3P+PE	(36)C13 (6)C19	10 ft.	AP7557NA

Rack power distribution selection

Metered Rack PDUs

Mounting U-Space	Input Circuit	Nominal Power	Input Plug Type	Output Receptacles	Cord Length	SKU
120 V input voltage						
Vertical, 0U	15A	1.4 kW	NEMA 5-15P	(16)5-15	10 ft.	AP7831
Vertical, 0U	20A	1.9 kW	NEMA L5-20P	(24)5-20	10 ft.	AP7830
Vertical, 0U	30A	2.9 kW	NEMA L5-30P	(24)5-20	10 ft.	AP7832
Horizontal, 1U	15A	1.4 kW	NEMA 5-15P	(8)5-15	12 ft.	AP7800
Horizontal, 1U	20A	1.9 kW	NEMA L5-20P	(8)5-20	12 ft.	AP7801
Horizontal, 2U	30A	2.9 kW	NEMA L5-30P	(16)5-20	12 ft.	AP7802
208 V input voltage						
Vertical, 0U	15A	2.5 kW	IEC-320 C14	(16)C13	10 ft.	AP7850
Vertical, 0U	20A	3.3 kW	NEMA L6-20P	(20)C13 (4)C19	10 ft.	AP7840
Vertical, 0U	20A	3.3 kW	NEMA L6-20P	(18)C13 (2)C19	10 ft.	AP8858NA3
Vertical, 0U	20A	3.3 kW	IEC-320 C20	(18)C13 (2)C19	Inlet	AP8858
Vertical, 0U	30A	5.0 kW	NEMA L6-30P	(20)C13 (4)C19	10 ft.	AP7841
Vertical, 0U	30A	5.0 kW	NEMA L6-30P	(36)C13 (6)C19	10 ft.	AP8841
Horizontal, 1U	15A	2.5 kW	IEC-320 C14	(8)C13	6.5 ft.	AP7820
Horizontal, 1U	20A	3.3 kW	IEC-320 C20	(8)C13	8 ft.	AP7821
Horizontal, 2U	30A	5.0 kW	NEMA L6-30P	(12)C13 (4)C19	12 ft.	AP7811

Switched Rack PDUs

Mounting U-Space	Input circuit	Nominal power	Input Plug Type	Output receptacles	Cord length	SKU
120 V Input voltage						
Vertical, 0U	15A	1.4 kW	NEMA 5-15P	(16)5-15	10 ft.	AP7931
Vertical, 0U	20A	1.9 kW	NEMA L5-20P	(24)5-20	10 ft.	AP7930
Vertical, 0U	30A	2.9 kW	NEMA L5-30P	(24)5-20	10 ft.	AP7932
Horizontal, 1U	15A	1.4 kW	NEMA 5-15P	(8)5-15	12 ft.	AP7900
Horizontal, 1U	20A	1.9 kW	NEMA L5-20P	(8)5-20	12 ft.	AP7901
Horizontal, 2U	30A	2.9 kW	NEMA L5-30P	(16)5-20	12 ft.	AP7902
208 V Input voltage						
Vertical, 0U	20A	3.3 kW	NEMA L6-20P	(7)C13 (1)C19	10 ft.	AP8958NA3
Vertical, 0U	20A	3.3 kW	IEC-320 C20	(7)C13 (1)C19	Inlet	AP8958
Vertical, 0U	20A	3.3 kW	NEMA L6-20P	(21)C13 (3)C19	10 ft.	AP7940
Vertical, 0U	20A	3.3 kW	NEMA L6-20P	(21)C13 (3)C19	10 ft.	AP8959NA3
Vertical, 0U	20A	3.3 kW	IEC-320 C20	(21)C13 (3)C19	Inlet	AP8959
Vertical, 0U	30A	5.0 kW	NEMA L6-30P	(21)C13 (3)C19	10 ft.	AP8641
Vertical, 0U	30A	5.0 kW	NEMA L6-30P	(21)C13 (3)C19	10 ft.	AP7941
Vertical, 0U	30A	5.0 kW	NEMA L6-30P	(21)C13 (3)C19	10 ft.	AP8941
Horizontal, 1U	15A	2.5 kW	IEC-320 C14	(8)C13	6.5 ft.	AP7920
Horizontal, 1U	20A	3.3 kW	IEC-320 C20	(8)C13	8 ft.	AP7921
Horizontal, 2U	30A	5.0 kW	NEMA L6-30P	(16)C13	10 ft.	AP7911A

Rack power distribution selection

Locking IEC Power Cords

PDU input	Server input	Cord length	Cords per SKU	SKU
IEC C14 Straight	IEC C13	2 ft.	6	AP8702S
		4 ft	6	AP8704S
		6 ft.	6	AP8706S
IEC C14 (3 right, 3 left)	IEC C13	2 ft.	6	AP8702R
		4 ft.	6	AP8704R
		6 ft.	6	AP8706R
IEC C20 Straight	IEC C19	2 ft.	6	AP8712S
		4 ft.	6	AP8714S
		6 ft.	6	AP8716S
IEC C20 (3 right, 3 left)	IEC C19	2 ft.	6	AP8712R
		4 ft.	6	AP8714R
		6 ft.	6	AP8716R

Locking IEC power cords provide a mechanism to secure power cord connections to the Rack PDU when used with any AP8000 series unit.

Every AP8000 Rack PDU includes 1 input jack for environmental monitoring probes.

Environmental

Description	Connector type	Cord length	SKU
Temp. sensor	RJ-45	13 ft.	AP9335T
Temp. and humidity sensor	RJ-45	13 ft.	AP9335TH

Rack ATS

Mounting U-Space	Input Circuit	Input Plug Type	Output Receptacles	Cord Length	SKU
120 V Voltage					
1	15A	NEMA 5-15P	(8) 5-15	8 ft.	AP7750
1	20A	NEMA L5-20P	(10) 5-20	8 ft.	AP7752
2	30A	NEMA L5-30P	(16) 5-20	8 ft.	AP7753
208 V Voltage					
1	15A	IEC C14 Inlet	(12) C13	none	AP7721
1	20A	IEC C20 Inlet	(8) C13, (1) C19	none	AP7723
1	20A	NEMA L6-20P	(8) C13, (1) C19	8 ft.	AP7730
2	30A	NEMA L6-30P	(16) C13, (2) C19	8 ft.	AP7732

Rack-mount PDU accessories

Vertical-mount bracket kits for third-party enclosures and alternate mounting configurations.

Bracket kits	SKU
Vertical, 0U mounting brackets for Dell and Rittal enclosures	AP7400*
Vertical, 0U mounting brackets for HP enclosures	AP7406*
NetShelter SX, 0U accessory and Rack PDU multiple orientation mounting bracket	AR7711
Horizontal to Vertical, 0U mounting bracket for horizontal 1U Rack PDUs	AR8417

*Brackets for AP7000 series Rack PDUs only

Rack-mount transfer switches

Provides redundant power to single-corded equipment.

NetBotz security and environmental monitoring

Security and environmental monitoring for network closets to data centers

NetBotz

Surveillance

- Leverage NetBotz, Pelco™ IP, and CCTV camera technology to monitor IT assets remotely

Management capabilities

- Alarming allows alerts, multiple notification methods, scheduling, graph and video attachments, and escalation
- StruxureWare Central available for centralized monitoring of multiple appliances

Environmental monitoring

- Wide range of sensor support to monitor the health of your IT assets
- Temperature, humidity, leak, door, smoke, vibration, dew point, airflow, dry contact, 4-20mA, and 0-5V

Access control

- Control and manage access privileges for APC NetShelter SX enclosures over the network

NBWL0455

NBPD0155

NBPD0160

NBRK0201

NBRK0451

High level security option for NetShelter SX

NetBotz rack access PX – HID system AP9361

- Configure individual HID proximity cards for access or schedule access to equipment for maintenance purposes
- Control and manage rack access privileges from a web browser
- Perform audit trails on rack access
- Receive alarm notification when the rack is in a compromised security state

AP9361

AP9361

NetBotz rack access pod 170 – NBPD0171

- Rack access pod connects via A-Link and mounts in the rack basement, minimizing space usage
- Rack access solution scales easily and can be used with any NetShelter SX brand enclosures

NBPD0171

NetBotz security and environmental monitoring

Features and benefits

Availability

- Prevent equipment failure from a full range of threatening environmental conditions
- Detect and prevent access to equipment from unauthorized personnel
- Real-time event notification minimizes response times to critical physical infrastructure situations. Enables IT Administrators to reduce mean time to repair, improve efficiency, and maximize uptime
- Detect and record motion, allowing a visual record to be paired with an access or environmental alert, which speeds root cause analysis
- Video storage prompted by motion or alert
- Grant authorized people access to equipment through proximity card authentication

Protection

- User-selectable password protection prevents unauthorized access
- Share access without risking unauthorized configuration changes with read-only options

Agility

- Customize threshold definitions (multiple thresholds per sensor, scheduling, severity levels) to individual requirements
- Alerts are managed according to user specific escalation policies and received in multiple formats
- Add sensors to compatible NetBotz Appliances for monitoring temperature, humidity, fluid, vibration, dust particles, etc.
- View the user interface with a browser or from a mobile device. Provides quick access from anywhere on a secure network
- Video storage prompted by motion or alert

Manageability

- Robust appliance interface provides historic alerts, graphs, and configuration
- Easily review and correlate alerts. Provide context to alerts by attaching video clips, graphs, and maps
- Integrates seamlessly with StruxureWare Central

" Anchor Glass Container Corporation is the third-largest manufacturer of glass containers in the United States. Our NetBotz monitoring gives us the peace of mind of having a complete monitoring picture and understanding of our data center environment."

- Dennis W. Grow
Manager MIS Technical Service
Anchor Glass Container Corp.

StruxureWare Central

Centralized, multi-vendor, real-time monitoring of data center physical infrastructure

StruxureWare Central is easy to use and deploy with a user-friendly interface to monitor, manage, and control the hundreds or thousands of devices a company might have from a wide range of manufacturers. These devices include equipment that provides power, cooling, security, and environmental monitoring.

- **Multi-vendor** – capable of monitoring any networked device from any manufacturer
- **Real-time monitoring**, user-defined reports and graphs, and instant fault notification and escalation enable quick resolution of critical infrastructure events.
- **Centralized repository** – of critical information accessible by multiple users from anywhere on the network.
- **Customized alarming** – alarm and escalate by device, by rack, by location to the right people at the right time.
- **Open and flexible architecture** – expands with changing business needs through additional device licenses, add-on surveillance, operations, capacity, and change modules.

StruxureWare Central options

Specifications	Basic	Standard	Enterprise	Virtual Machine	
SKU	AP9465	AP9470	AP9475	AP94VMTRL	AP94VMACT
Device Support (1 node = 1 IP address)	Up to 525 devices	Up to 2,025 devices	Up to 4,025 devices	Up to 5 devices	Up to 325 devices with (1) CPU and (1) GB RAM
					Up to 1,025 devices with (1) CPU and (2) GB RAM
					Up to 2,025 devices with (2) CPU and (2) GB RAM
					Up to 4,025 devices with (4) CPU and (4) GB RAM
NetBotz Appliance Surveillance Support	Up to 15 appliances	Up to 125 appliances	Up to 250 appliances	Up to 1 appliance	Up to 250 appliances
StruxureWare Operations	Up to 20 racks	Up to 200 racks	Up to 1,000 racks (2,500 nodes)		
StruxureWare Capacity					
StruxureWare Mobile					
StruxureWare Energy Efficiency					
StruxureWare Energy Cost					
StruxureWare Change					
Building Management System Integration	Yes	Yes	Yes	Yes	
Multi-vendor SNMP and ModBus Support	Yes	Yes	Yes	Yes	
Power	Single supply	Single supply	Dual supply	n/a	
Supported device types					
All: UPS Models, Chillers, Power Distribution Units (PDU), Rack PDUs, Computer Room Air Conditioners, Environmental Sensors, Power Metering Equipment, Surveillance Appliances, Static Transfer Switches, Standby Generators	Yes	Yes	Yes	Yes	
Client system and web browser prerequisites					
Operating system	Microsoft® Windows®, XP SP2, Server 2003, Vista or Red Hat Enterprise, Linux 5.x (32-bit platforms only)				
CPU speed	1 GHz or better AMD/Intel processor				
System memory	1GB RAM				
Screen resolution	1024 x 768				
Browser requirements	The browser must be JavaScript® enabled, MozillaFirefox® version 3.0.8 or higher, Microsoft Internet Explorer® version 6.0 or higher				
Communication and storage					
On-board RAM	1 GB	2 GB	4 GB	See "Supports VMware® Fault Tolerance"/"High Availability"	
Data storage	160 GB available for data storage	250 GB available for data storage	1 TB available for data storage	18 GB minimum (includes required space for VM image and 1GB of data storage)	
Support VMware fault tolerance	n/a	n/a	n/a	(1) CPU, (1) GB RAM, up to 325 devices (1) CPU, (2) GB RAM, up to 1,025 devices	
Support VMware high availability	n/a	n/a	n/a	(1) CPU, (1) GB RAM, up to 325 devices (1) CPU, (2) GB RAM, up to 1,025 devices (2) CPU, (2) GB RAM, up to 2,025 devices (4) CPU, (4) GB RAM, up to 4,025 devices	
Protocols	DNS, HTTP, HTTPS, SMS, SMTP, SSL, TCP/IP, SNMP			DNS, HTTP, HTTPS, SMS, SMTP, SSL, TCP/IP, SNMP, Modbus TCP	
Network interface connections	RJ-45 10/100/1000 Base-T				

LCD monitors and KVM switches

Optimize rack space. Maximize system visibility.

APC Rack LCD Consoles are a keyboard, mouse, 17 in/19 in LCD console, and optional integrated 8/16 port analog KVM Switch (17 in model only) all in a compact 1U design. This compact design allows a KVM switch to be mounted in the rear of the Rack LCD Console, or, eliminate the need for a separate KVM switch altogether by choosing a Rack LCD Console with Integrated 8/16 port analog KVM Switch. The console is easily installed and minimizes support and maintenance costs, ensuring lower cost of ownership. The ultra-thin LCD screen, touchpad technology, and easy-to-install single user rack mount kit combine to form a high-quality, streamlined solution built for server management. The Rack LCD Consoles can be used in a variety of IT environments, from computer rooms to large data centers.

- Ultra-thin 17 in or 19 in LCD Monitor
- Integrated keyboard with number pad
- USB Port for external media
- Space-saving 1U design
- Touchpad mouse
- Easy to install

AP5808

LCD Console	SKU
17 inch Rack LCD Console	AP5717
19 inch Rack LCD Console	AP5719

LCD Console with Integrated KVM Switch	SKU
17 inch Rack LCD Console with Integrated 8-port KVM Switch	AP5808
17 inch Rack LCD Console with Integrated 16-port KVM Switch	AP5816
KVM USB Cable, 6 ft. (1.8 m)	AP5821
KVM USB Cable, 12 ft. (3 m)	AP5822
KVM USB Cable, 25 ft. (5 m)	AP5823

AP5816

Access your servers across the room or across the world

APC Rack KVM switches empower IT administrators through both local and remote POST and BIOS-level access and control of connected servers. APC Analog, CAT-5 Analog, and IP KVM switches help reduce total cost of ownership--minimizing space, hardware, electricity, and cabling by leveraging just one keyboard, monitor, and mouse for multiple servers. Improve return on investment and flexibility through enterprise-level scalability with centralized management. IT infrastructure management in data centers, computer rooms, and remote branch offices is now possible with greater control and peace of mind with APC Rack KVM switches.

AP5201

KVM Switches with Coaxial Type Connection	SKU
8-port Analog KVM	AP5201
16-port Analog KVM	AP5202

KVM Switches with CAT-5 Type Connection	SKU
32-port Digital Enterprise IP KVM with Virtual Media, 2 remote users	KVM2132P
16-port Digital Enterprise IP KVM with Virtual Media, 2 remote users	KVM2116P
16-port Digital IP KVM with Virtual Media, 1 remote users	KVM1116P
16-port Analog Enterprise KVM with Virtual Media, 2 local users	KVM0216A
16-port Analog KVM, 1 local users	KVM0116A
8-port Analog KVM, 1 local users	KVM0108A
KVM USB Server Module	KVM-USB
KVM PS/2 Server Module	KVM-PS2
KVM USB Server Module with Virtual Media	KVM-USBVM
KVM PS/2 Server Module with Virtual Media	KVM-PS2VM
KVM USB Server Module with Virtual Media and CAC Support	KVM-USBVMCAC
KVM Serial Server Module	KVM-SERIAL
KVM to APC Rack PDU Power Management Cable	AP5641
KVM 1U Bracket for rearmount behind Rack LCD Console	KVM-LCDMOUNT
KVM Access Software License Upgrade to Enterprise (1024 Nodes)	SEKVM1024N

Cables	2ft	3ft	6ft	12ft	25ft
KVM USB cable			AP5253	AP5257	AP5261
KVM PS/2 cable		AP5264	AP5250	AP5254	AP5258
KVM Daisy-Chain cable	AP5262		AP5263		

APC Smart-UPS

Advanced line interactive power protection for servers and network equipment

The world's most popular network and server UPS

Award-winning Smart-UPS protects critical data by supplying reliable, network-grade power in either traditional tower or rack-optimized convertible form factor. Included PowerChute™ management software provides IT administrators the comfort of safe system shutdown and advanced UPS management.

Tower 750-3000 VA

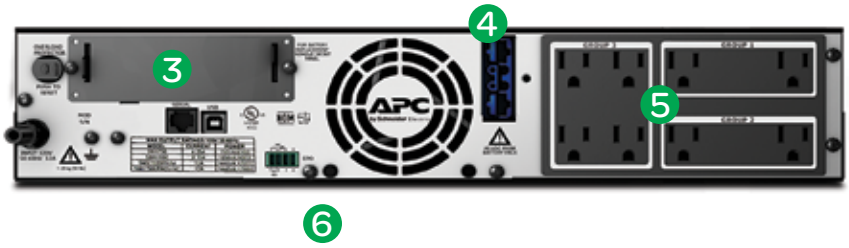
Standard features:

1. **Alpha/numeric LCD display**
   Intuitive interface provides detailed and accurate information with ability to configure locally.
2. **High efficiency green mode**
   Optimum efficiency which saves utility and cooling costs.
3. **Network grade power conditioning**
   Extended range automatic voltage regulation (AVR), noise filtering, and surge protection.
4. **Advanced battery management**
   Temperature compensated charging extends life and advanced algorithms recommend replacement date.
5. **Communication ports**
   Serial, USB, and Smart-slot for accessory cards.
6. **Switched outlet group**
   Reboot hung devices, shed non-critical loads to conserve runtime, sequenced start-up/ turn off.
7. **Battery disconnect**
   Convenient way to disconnect battery for transport.

APC Smart-UPS Extended Run

Convertible extended run models ideal for critical servers and voice/data switches

Extended Run 750-1500VA



Additional features from standard:

1. **Slim 2U Rack/Tower convertible form**
   Display rotates easily for use in or out of a rack.
2. **High frequency design**
   Reduces size of (or eliminates) bulky transformers making installation even easier.
3. **Models available with pre-installed network cards**
   Models with “NC” suffix have pre-installed AP9631 network cards with temperature monitoring.
4. **Smart external battery connector**
   Accept external batteries and increases runtime automatically to increase availability.
5. **Switched outlet groups**
   Reboot hung devices, shed non-critical loads to conserve runtime, sequenced start-up/turn off.
6. **Emergency power off (EPO)**
   Provides for remote UPS shutoff in the event of a fire or other emergency.

APC Smart-UPS display

Intuitive, easy to use LCD interface

1 LCD Display Screen

Clear, consistent, and detailed information in your choice of basic or advanced menus.

Power Status
- Operating mode and efficiency
- Load VA/Watts/Amps
- Input/Output Voltage and frequency
- Battery capacity and runtime
- Energy meter and more

Control
- UPS and outlet group settings

Configuration
- Language
- Power quality setting
- Sensitivity
- Voltage transfer points
- Alarm, delay, and threshold settings

Test and diagnostics
- Initiate battery and runtime calibration tests

Logs
- See explanation of last ten transfers and faults

About
- UPS and replacement battery part numbers
- Serial numbers
- Battery install and suggested replacement dates

2 High frequency design

Reduces size of (or eliminates) bulky transformers making installation even easier.

3 Models available with Pre-installed network cards

Models with “NC” suffix have pre-installed AP9631 network cards with temperature monitoring.

4 Smart external battery connector

Accept external batteries and increases runtime automatically to increase availability.

5 Switched outlet groups

Reboot hung devices, shed non-critical loads to conserve runtime, sequenced start-up/turn off.

On all SMT and SMX models

Standard tower models

Product feature	SMT750	SMT1000	SMT1500	SMT2200	SMT3000
Output					
Power capacity	500 W/750 VA	670 W/1000 VA	980 W/1500 VA	1980 W/2200 VA	2700 W/3000 VA
Nominal output voltage	120 V				
Output frequency	57-63Hz				
Wave form type	Sine wave				
Output connections	(6) NEMA 5-15R	(8) NEMA 5-15R		(8) NEMA 5-15R, (2) NEMA 5-20R	
Input					
Nominal input voltage	120 V				
Input voltage range for main operations (Max adjustable range)	82-144 V (75-154 V)				
Input frequency	50/60 Hz +/-3 Hz (auto sensing)				
Input connection	NEMA 5-15P, 6 ft cord			NEMA 5-20P	NEMA L5-30P
Batteries and runtime					
Battery type	Maintenance-free sealed lead-acid battery with suspended electrolyte, leak proof				
Typical backup time at 1/2 Load (minutes)	15.9	20.6	23.9	24.1	13.6
Typical backup time at full Load (minutes)	4.6	6.1	6.7	6.7	5.5
Replacement battery	RBC48	RBC6	RBC7	RBC55	
Communication and management					
Interface ports	Serial (RJ45), USB and Smart-Slot				
Control panel and audible alarms	Alpha-numeric LCD display with LED status indicators; alarm on battery, distinctive low battery alarm and configurable delays				
Emergency power off (EPO)	Optional			Yes	
Surge protection and filtering					
Surge energy rating	540J	459J			
Filtering	Full time multi-pole noise filtering: 0.3% IEEE surge let-through, zero clamping response time, meets UL1449				
Physical					
Maximum height (inches)	6.20	8.50	8.50	17.0	17.0
Maximum width (inches)	5.40	6.70	6.70	7.7	7.7
Maximum depth (inches)	14.10	17.3	17.3	21.5	21.5
Net weight (lbs)	29	42	53	112	116
Conformance					
Regulatory	UL 1778, FCC Part 15 Class A, CSA				
Warranty and equipment protection policy	3 years electronics, 2 years battery and $150,000 lifetime EPP				

Extended run rack/tower convertible models

Product feature	SMX750	SMX1000	SMX1500RM2U
Output			
Power capacity	500 W, 750 VA	800 W, 1000 VA	1200 W, 1500 VA
Nominal output voltage	120 V		
Output frequency	57-63Hz		
Wave form type	Sine wave		
Output connections	(8) 5-15R, (750 has 1 group, 1000 has 2, 1500 has 3)		
Input			
Nominal input voltage	120 V		
Input voltage range for main operations (Max adjustable range)	82-143 V (75-153 V)		
Input frequency	50/60 Hz +/-3 Hz (auto sensing)		
Input connection	NEMA 5-15P 8 ft cord		
Batteries and runtime			
Battery type	Maintenance-free sealed lead-acid battery with suspended electrolyte, leak proof		
Typical backup time at half load (minutes)	24	20	14
Typical backup time at full Load (minutes)	12	8	5
Replacement battery	APCRBC116		APCRBC115
External Battery Pack	SMX48RMBP2U		
Communication and management			
Interface ports	Serial (RJ45), USB and Smart-Slot		
Control panel and audible alarms	Alpha-numeric LCD display with LED status indicators; alarm on battery, distinctive low battery alarm and configurable delays		
Emergency power off (EPO)	Yes		
Surge protection and filtering			
Surge energy rating	645J		
Filtering	Full time multi-pole noise filtering: 0.3% IEEE surge let-through, zero clamping response time, meets UL1449		
Physical			
Maximum height (inches)	3.5 (2U)		
Maximum width (inches)	17		
Maximum depth (inches)	19		
Net weight (lbs)	49	50	55
Conformance			
Regulatory	UL 1778, FCC Part 15 Class A, CSA		
Warranty and equipment protection policy	3 years electronics, 2 years battery and $150,000 lifetime EPP		

Smart-UPS Online

1.5-20 kVA rack/tower convertible 2U-12U

Performance power protection with scalable runtime for space-constrained server rooms, and voice and data networks.

APC Smart-UPS Online is a family of high-density, performance UPSs for voice and data networks, server rooms, and light industrial applications. Capable of supporting up to 20 kVA in a 12U rack/tower convertible form, users can support power hungry blade servers or heavily loaded equipment racks. This flexible form factor allows standardization across multiple applications.

Features

- **Automatic internal bypass** Supplies utility power to the connected loads in the event of a UPS overload condition or fault.
- **Scalable runtime** Allows quick addition of more runtime when needed.
- **Intelligent battery management** Provides higher availability through intelligent precision charging that maximizes battery performance, life, and reliability.
- **Hot-swappable batteries** Ensures clean, uninterrupted power to protected equipment throughout battery replacement.
- **Plug-and-Play external batteries** Ensures clean, uninterrupted power to the loads when adding extra runtime to the UPS.
- **Rack/Tower convertible** Protects the initial investment in the UPS when migrating from tower to rack-mount environment.
- **Flash-upgradeable firmware** Allows implementation of new firmware upgrades.
- **Network manageable** Monitor and control the UPS and access environmental information remotely via included PowerChute software or APC's Network Management Card with temperature monitoring (included in all models above 3 kVA).
- **SmartSlot** Customize UPS capabilities with management cards.
- **LED status indicators** Enables quick understanding and response to visual indicators showing UPS status.
- **Serial connectivity** Provides management of the UPS via a serial port.

Environments

Network closets: Convergence of voice and data makes availability all the more critical. High power internal chargers allow virtually unlimited additional matching battery packs to comply with aggressive runtime demands of business-critical systems.

Server rooms: Smart-UPS Online small footprint and versatile form factor is very much suitable to enhance availability of the small server rooms drawing single phase power and supporting 5-10 racks worth of IT gear.

Light industrial: The on-line double conversion topology of Smart-UPS Online with input power factor correction is ideal for industrial applications protecting a small control or operations room requiring single phase power. Even the smallest power disruptions can cause work flow disruptions causing thousands and even millions of dollars of damage.

Smart-UPS Online specifications

Available models	Runtime half/full load (minutes)	Watt capacity	Input	Output*	Integrated network management card
Smart-UPS Online 1500 VA	22/8	1,050	5-15P	(6)5-15	
Smart-UPS Online 2000 VA	15/5	1,400	5-20P	(6)5-15	
Smart-UPS Online 3000 VA	34/14	2,100	L5-30P(120 V), L6-30P(208 V)	(6)5-15, (2)5-20 (120 V), (2)L6-20, (2)L6-30 (208 V)	
Smart-UPS Online 5000 VA	12/4	4,000	L14-30P	(4)5-20, (2)L6-30, L14-30	×
Smart-UPS Online 6000 VA	11/3	4,200	L14-30P	(4)5-20, (2)L6-30, L14-30	×
Smart-UPS Online 5000 VA	16/6	3,500	L6-30P	(2)L6-20, L6-30	×
Smart-UPS Online 6000 VA	15/5	4,200	L6-30P	(2)L6-20, L6-30, (1) Hardwire (2P & G)	×
Smart-UPS Online 8000 VA	18/6	6,400	Hardwire (2PH & G)	(2)L6-20, (2)L6-30, (1)Hardwire (2P & G)	×
Smart-UPS Online 10000 VA	13/4	8,000	Hardwire (2PH & G)	(2)L6-20, (2)L6-30, (1)Hardwire (2P & G)	×
Smart-UPS Online 15000 VA	22/8	12,000	Hardwire (2PH & G)	(2)L6-20, L6-30, (1)Hardwire (2P & G)	×
Smart-UPS Online 20000 VA	15/5	16,000	Hardwire (2PH & G)	(2)L6-20, L6-30, (1)Hardwire (2P & G)	×

Available optional products

Output stepdown transformer

Output stepdown transformers for use with Smart-UPS Online

3000/5000/6000/8000/10,000 VA models

Steps down 208 V to 120 V

SURT003 Tower stepdown/isolation transformer, rated at 5000 VA, rack-mountable with rail-kit (SURTRK2), 3U inside rack

AP9626 Rack optimized stepdown transformer, rated at 5000 VA, 2U inside rack

Battery packs

An unlimited number of rack/tower convertible external battery packs can be added to achieve desired levels of runtime. Smart-UPS Online battery packs are hot-swappable so you never have to bring down your mission critical loads to service the unit.

SURT192XLBP battery pack for Smart-UPS Online 3000/5000/6000/8000/10,000 VA models, 3U inside the rack

SURTA48XLBP battery pack for APC Smart-UPS Online 1500/2000 VA models, 2U inside the rack

Rail kits

AP9625 2-post rail-kit for Smart-UPS Online

SURTRK 4-post rail-kit for Smart-UPS Online 1500/2000 VA models and SURTA48XLBP

SURTRK2 4-post rail-kit for Smart-UPS Online 3000/5000/6000/8000/10,000 VA models, SURT192XLBP, SURT003, and AP9626

Symmetra

4-16 kVA N+1 redundant, rack or tower

High performance, redundant power protection with scalable power and runtime for space-constrained server rooms, and voice and data networks.

Engineered to deliver the highest level of business continuity possible, the Symmetra LX uses a modular redundant architecture that can scale power and runtime as demand increases or when higher levels of availability are required. With built-in network manageability, and rack-optimized and tower models available from 4-16 kVA N+1 redundant, the online Symmetra LX is the choice to protect high-performance IT and Telecom equipment in business-critical server and network rooms.

Environments

Network Closets: Convergence of voice and data makes availability all the more critical. Redundant and manageable power protection provides scalable runtime for network applications in addition to cellular sites, VoIP applications, and PBX systems.

Server Rooms: Symmetra LX provides remote management over the network to manage and maintain unpredictable changes in the environment. The modular design and N+1 redundancy offers high availability and serviceability.

Retail: Extended power outages can disrupt an entire store, including point of sale terminals, servers, and network switches in the back room. Symmetra LX allows for un-interruptible operation for business-critical systems.

Light Industrial: The on-line double conversion topology of input power factor correction is ideal for industrial applications protecting a small control. Even the smallest power disruptions can cause work flow disruptions causing thousands and even millions of dollars of damage.

Features

- **Scalable runtime** Allows quick addition of more runtime when needed.
- **Scalable power** Reduces UPS over-sizing costs today by allowing quick upgrades later.
- **Manageable external batteries** Reduces preventative maintenance service needs by monitoring the health and status of the external batteries and their expected runtime.
- **Configurable for N+1 internal redundancy** Provides high availability through redundancy by allowing configuration with one more Power Module than is necessary to support the connected load.
- **Rack/Tower convertible** Protects the initial investment in the UPS when migrating from tower to rack-mount environment.
- **Modular design** Provides fast serviceability and reduced maintenance requirements via self-diagnosing, hot-swappable, and field-replaceable modules.
- **Network manageable** Provides remote management of the UPS over the network.
- **LCD display** Manage the UPS locally through a text-based display that allows quick diagnosis via stored alarm conditions and events.
- **Automatic internal bypass** Supplies utility power to the connected loads in the event of a UPS overload condition or fault.
- **Removable input/output wiring tray** Allows quick and easy installation and maintenance of the UPS.
- **Field-replaceable power distribution panel** Ensures compatibility with equipment that has different plug types

Symmetra specifications

Available models	Runtime half/full load (minutes)	Watt capacity	Input	Output	Integrated network management card
Symmetra LX 4 kVA scalable to 8 kVA N+1	16/6	3200	208/240 V Hardwire	4 - 8 kVA (RM) HW + (2) NEMA L14-30R and (4) NEMA L5-20R, (4) L14-30, (8) L5-20 8 - 16 kVA (RM) HW +(4) NEMA L14-30R and (8)NEMA L5-20R 208/240 and 120 V Hardwire (Tower models)	×
Symmetra LX 8 kVA scalable to 16 kVA N+1	17/6	6400	208/240 V Hardwire		×
Symmetra LX 12 kVA scalable to 16 kVA N+1	17/6	9600	208/240 V Hardwire		×
Symmetra LX 16 kVA scalable to 16 kVA N+1	17/6	12800	208/240 V Hardwire		×
Symmetra LX 16 kVA scalable to 16 kVA N+1 Ext. Run Tower	47/20	12800	208/240 V Hardwire		×

Additional solutions enhancement options

Battery systems

Additional battery modules or external battery frames can be added to achieve desired levels of runtime. Symmetra LX battery modules and frames are hot-swappable so you never have to bring down your mission critical loads to service the unit.

SYBT5 Battery module for APC Symmetra LX.

SYARMXR9B9, SYAXR9B9, and SYARMXR3B3. Symmetra LX Extended Run Battery Frames.

Services

Services to extend the coverage beyond the original factory warranty or on site to diagnose or repair your APC equipment

WEXTWAR1YR-SY-16 1 year extended warranty

WEXTWAR3YR-SY-16 3 year extended warranty

WONSITEBE-SY-16 1 year best endeavor response on-site service for Symmetra

WONSITENBD-SY-16 1 year next business day on-site service for Symmetra

Service bypass

Service Bypass Panels featuring quick transfer time and wraparound service bypass.

SBP16KP 200/208/240 V; 100A; MBB; Hardwire input/output

SBP16KRMP4U Input: 208 V, Input connections: Hard Wire 3-wire (2PH + G), Hard Wire 4-wire (2PH+N+G), Output: 200 V, 208 V, Output Connections: NEMA L14-30R L6-30R output

SBP16KRMP4U-HW Input: 208 V, Input Connections: Hard Wire 3-wire (2PH + G), Hard Wire 4-wire (2PH+N+G), Output: 120 V, 200 V, 208 V, Output Connections: Hard Wire 3-wire (2PH + G), Hard Wire 4-wire (2PH + N +G), NEMA L14-30R, NEMA L5-20R

Power distribution

Field replaceable receptacle panels allow direct connection enabling fast installation of new IT equipment.

SYPD1 Power distribution panel; (1) L14-30, (2) L5-20

SYPD3 208/240 V Backplate kit with (2) L6-20R and (1) L6-30R

SYPD7 208V/240 V Backplate kit with (3) L6-20R

SYPD11 208/240 V Backplate kit with (2) L6-30R

Online resources

Learn more

APC Solutions
Visit http://www.apc.com/site/Solutions/index.cfm/solutions/server-rooms/

See for myself

NetShelter SX multimedia product demo
Receive a guided tour of the NetShelter SX enclosures—at your convenience. Free online multimedia demo walks you through ease of use, power distribution, cooling, and cable management benefits.
Visit www.apc.com/tours/netsheltersxtour

Additional resources

White Paper #103:
How monitoring systems reduce human error in Distributed Server rooms and remote wiring closets.
Visit http://www.apc.com/wp?wp=103

White Paper #68:
Cooling strategies for IT wiring closets and small rooms
Visit http://www.apc.com/wp?wp=68

White Paper #69:
Power and cooling for VoIP and IP telephony applications
Visit http://www.apc.com/wp?wp=69

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